CLAIMS

1. A processor-readable medium comprising processor-executable instructions for:

comparing a rate of pattern repetition in data to recorded rates of pattern repetition;

determining a content type using the rate of pattern repetition and the recorded rates of pattern repetition; and

compressing and decompressing data in a manner appropriate to the content type.

2. A processor-readable medium as recited in claim 1, additionally comprising instructions for:

determining data patterns that are frequently found in a first content type and which are infrequently found in a second content type.

3. A processor-readable medium as recited in claim 1, additionally comprising instructions for:

examining data of a known content type;

recording rates of pattern repetition found in the data of the known content type.

4. A processor-readable medium as recited in claim 1, additionally comprising instructions for:

after the rate of pattern repetition changes, compressing and decompressing data according to a new content type.

5. A processor-readable medium as recited in claim 1, additionally comprising instructions for:

building a pattern library by recording rates of pattern repetition from data of a known content type.

6. A system for data content recognition, compression, and decompression, comprising:

a data recognition module to recognize a content type of data;

a compressor to compress the data according to the content type; and

a decompressor to decompress the data according to the content type.

7. The system of claim 6, wherein the data comprises device ready bits appropriate to drive a print engine.

8. The system of claim 7, additionally comprising:

a buffer, within which the device ready bits reside after compression and before decompression.

9. The system of claim 6, wherein the compressor is on a workstation and the decompressor is on a printer.

10. The system of claim 6, wherein the compressor and the decompressor are on a printer.

11. The system of claim 6, additionally comprising:

a PDL interpreter to supply the data to the data recognition module.

12. The system of claim 6, additionally comprising:

a print engine to receive the data after decompression.

13. The system of claim 6, additionally comprising:

a learning module, in communication with the data recognition module, to learn relationships between a plurality of data patterns associated with a plurality of content types.

14. The system of claim 6, additionally comprising:

a pattern library, in communication with the data recognition module, to store information on relationships between data patterns and content types.

15. The system of claim 6, additionally comprising:

a recognition module, in communication with the data recognition module, to associate data patterns and content types.

16. A printer, comprising:

a data recognition module to recognize a content type of device ready bits;

a compressor to compress the device ready bits according to the content type of the device ready bits;

a buffer to store the device ready bits after compression and before decompression;

a decompressor to decompress the device ready bits according to compression of the device ready bits; and

a print engine to receive the device ready bits after decompression.

17. The printer of claim 16, additionally comprising:

a PDL interpreter to interpret a PDL print job and to supply the device ready bits.

18. The printer of claim 16, wherein the data recognition module additionally comprises:

a learning module to learn relationships between a plurality of data patterns and a plurality of content types.

19. The printer of claim 18, wherein the data recognition module additionally comprises:

a pattern library to store information on the relationships.

20. The printer of claim 16, wherein the data recognition module additionally comprises:

a recognition module to associate data patterns and content types.

21. A method for data content recognition, compression, and decompression, comprising:

examining data for pattern repetition;

comparing a rate of pattern repetition to recorded rates of pattern repetition;

determining a content type of the data; and

compressing the data in a manner appropriate to the content type of the data.

22. The method of claim 21, additionally comprising:

decompressing the data in a manner appropriate to the content type of the data.

23. The method of claim 21, wherein the data comprises device ready bits.

24. The method of claim 21, additionally comprising:

examining data of known content type; and

recording rates of data pattern repetition.

25. The method of claim 21, additionally comprising:

building a pattern library by recording rates of pattern repetition from device ready bits from data of known content type.

26. The method of claim 21, additionally comprising:

after the rate of pattern repetition changes, compressing and decompressing device ready bits according to a new content type.

27. A processor-readable medium comprising processor-executable instructions for:

examining data for pattern repetition;

comparing a rate of pattern repetition to recorded rates of pattern repetition;

determining a content type of the data; and

compressing the data in a manner appropriate to the content type of the data.

28. A processor-readable medium as recited in claim 27, additionally comprising instructions for:

decompressing the data in a manner appropriate to the content type of the data.

29. The processor-readable medium of claim 27, wherein the data comprises device ready bits.

30. A processor-readable medium as recited in claim 27, additionally comprising instructions for:

examining data of known content type; and

recording rates of data pattern repetition.

31. A processor-readable medium as recited in claim 27, additionally comprising instructions for:

building a pattern library by recording rates of pattern repetition from device ready bits from data of known content type.

32. A processor-readable medium as recited in claim 27, additionally comprising instructions for:

after the rate of pattern repetition changes, compressing and decompressing device ready bits according to a new content type.